

STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. 18-0974-TF

Tariff filing of Green Mountain Power Corporation requesting a 5.45% increase in its base rates effective with bills rendered January 1, 2019, to be fully offset by bill credits through September 30, 2019

PREFILED DIRECT TESTIMONY OF
BRIAN E. WINN

ON BEHALF OF THE
VERMONT DEPARTMENT OF PUBLIC SERVICE

July 30, 2018

Summary: Mr. Winn provides an overview of the Department of Public Service's (the "Department") recommendation to reduce Green Mountain Power's requested revenue requirement by approximately \$ million. Mr. Winn also discusses in detail the Department's recommendation regarding appropriate rate treatment for Green Mountain Power's proposed growth-related capital

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spending, introduces the testimony of the Department's witnesses, and briefly discusses innovative services.

Mr. Winn Sponsors the Following Exhibits:

Exhibit PSD-BEW-1: Professional Resume of Brian E. Winn

Exhibit PSD-BEW-2: GMP Standard and Poor's Presentation

Exhibit PSD-BEW-3: Near-term Rate Driver Analysis

Direct Testimony
Of
Brian E. Winn

1 **Q1. Please state your name, occupation, and business address.**

2 A1. My name is Brian E. Winn. I am the Director of Finance & Economics at the Vermont
3 Department of Public Service (the "Department" or "PSD"). My responsibilities include
4 direction of Utility Finance and Economics group activities for the Department and the
5 State of Vermont. My business address is 112 State Street, Montpelier, Vermont 05620.
6

7 **Q2. Please describe your educational background and experience.**

8 A2. I have a B.A. in Political Science from Purdue University, and a Master's of Science in
9 Management from The Georgia Institute of Technology. I have worked at the
10 Department since July, 2016. Prior to joining the Department, I was employed with
11 Edison International or Southern California Edison, its regulated utility subsidiary, for
12 over twenty years. During my tenure there I held various positions including: Director of
13 Financial Planning and Analysis; Director of Business Analytics; Director of Performance
14 Management and Measurement; Director of Nuclear Financial Management; and Director
15 of SCE Budgets and Planning. Prior to Edison, I was a Utility Finance Consultant for
16 Energy Management Associates. My professional resume is included as Exhibit PSD-
17 BEW-1.
18

19 **Q3. Have you ever testified before the Vermont Public Utility Commission (the**
20 **"Commission or "PUC")?**

1 A3. Yes, I have testified in Docket Nos. 8698/8710, 8827, 8871, 8881, 17-1238-INV, 17-
2 3112-PET, 17-5003-PET, 18-0409TF, and 18-0491-PET

3

4 **Q4. What is the purpose of your testimony?**

5 A4. In my testimony I discuss the organization of the Department's case; summarize the
6 Department's recommendations; discuss in detail the Department's recommended rate
7 treatment for various Green Mountain Power ("GMP") capital projects; recommend
8 improvements to GMP processes related to analysis of capital projects and power
9 procurement; discuss the Department's recommendations for power supply costs and
10 short-term incentives; and introduce the Department's witnesses.

11

12 **Q5. What has GMP requested in this proceeding?**

13 A5. GMP's rate filing with the Commission consists of a base rate increase of 5.45 percent
14 which is offset by a onetime bill credit associated with returning excess Accumulated
15 Deferred Income taxes as a result of the recent federal tax legislation. The net result is a
16 decrease of 0.5 percent for rates starting January 1, 2019.

17

18 **Q6. What is the Department's recommendation regarding the Company's requested rate
19 increase?**

20 A6. GMP filed a cost-of-service ("COS") that reflects a \$25.112 million revenue deficiency.
21 The Department's overall conclusion is that there is a deficiency of \$__ million.

1 Therefore, the Company's request of 5.45 percent is reduced to percent. The table
 2 below summarizes the Department's proposed adjustments:

3
 4 **Summary of the Department's Adjustments to GMP**
 5 **COS Cost-of-Service-service**

	<u>\$1,000</u>
9 Revenue Deficiency per GMP COS	\$25,112
11 PSD Adjustments to COS	
12 Purchased Power, net	(\$0)
13 Depreciation & Amortization	(0)
14 Taxes - Federal, State & Gross Receipts	(0)
15 Net Gain from Assets Sold	(0)
16 Return on Utility Rate Base	(\$0)
17 Merger Savings	(\$0)
	<u>19</u>
Total PSD Proposed Deficiency	<u>\$0</u>
	20

21 **Q7. Please briefly summarize the reasons for the Department's proposed adjustments to**
 22 **GMPs Cost-of-Service-service?**

23 A7. The Department's recommendations largely reflect two general concerns: (1) GMP's rate
 24 of capital spending, and (2) a concern about the distribution of financial risk between
 25 GMP's shareholders and ratepayers as GMP continues develop and introduce new
 26 innovative services. To be clear, the Department is largely supportive of GMP's
 27 innovative efforts in support of state energy policy and the Department's
 28 recommendations in this case should not be interpreted as discouraging GMP from
 29 continuing to identify and implement innovative products that, provided they will

1 provide yield tangible, and reliably quantifiable, benefits to for GMP's ratepayers.

2 However, the financial risk associated with those projects must be appropriately balanced
3 between ratepayers and shareholders.

4
5 With respect to its specific recommendations, the Department proposes that the
6 Commission remove the Tesla Powerwalls, Heat Pump Water Heaters and \$ million of
7 T&D individual and blanket projects and "hold to sell" RECs from rate base in the case,
8 for a total rate base reduction of \$ million. Additionally, the Department is
9 recommending that \$397,682 be removed from Purchased Power Costs. ~~I also address~~
10 ~~concerns with GMP's short-term incentive payment plan ("STIP"), but I am not~~
11 ~~recommending any reductions related to the STIP because, as I discuss below, those costs~~
12 ~~are included within GMP's ten-year Base Operations and Management ("O&M")~~
13 ~~platform that was approved by the Commission as result of the merger with Central~~
14 ~~Vermont Public Service.~~

15
16 **Q8. Does the Department have any other recommendations for the Commission?**

17 A8. Yes. The Department's support for the Storage/Solar projects is contingent on GMP
18 providing ratepayers financial assurance that the projects will deliver the
19 asserted/anticipated economic benefits and that GMP indemnify the ratepayers for any
20 financial consequences should the proposed ratemaking or accounting be disallowed by
21 the IRS. The Department also recommends that the Commission require GMP to: (1)
22 consider all reasonable alternatives to proposed capital projects and solicit Requests for

1 Proposals (“RFPs”) when multiple vendors are available; (2) maintain adequate
2 contemporaneous information on the capital project planning and project approval
3 processes; (3) improve its methods for prioritizing reliability projects; and (4) follow a
4 more ~~rigorous~~structured process for procuring energy and capacity resources including
5 soliciting RFPs.
6

7 **Background and Overview**

8 **Q9. ~~Can you please~~Please describe the Department’s investigation into the**
9 **proposed change in rates?**

10 A9. Yes.—After GMP made its rate filing, the Department organized a team composed of
11 internal resources and experts from GDS Associates, Inc. and J. Kennedy and Associates.
12 The team conducted a thorough review of the petition and supporting documentation,
13 with a focus on capital spending, power supply, cost of capital, and regulatory
14 accounting. The Department issued two rounds of discovery to the Company, engaged in
15 a series of meetings and conference calls with key GMP staff to exchange information,
16 and reviewed relevant Commission precedent.
17

18 **Q10. How is the Department’s testimony organized?**

19 A10. The Department is presenting testimony from eight witnesses. In my testimony I provide
20 a high-level summary of the entire case including: the Department’s recommendations; a
21 discussion of capital spending; and summaries of the recommendations of the other
22 witnesses. Ed McNamara, the Director of the Department’s Planning and Energy

1 Resources Division (“PERD”) provides a summary of the power supply portion of the
2 case and makes recommendations regarding GMP’s Regional Network Service (“RNS”)
3 charge and GMP’s accounting treatment of RECs within rate base. Carol Flint, the
4 Director of the Department’s Consumer Affairs and Public Information (“CAPI”)
5 Division, provides an assessment of GMP’s customer service. The remaining witnesses
6 are outside consultants that provide more detailed testimony in the areas covered by Mr.
7 McNamara and myself. Terry Myers of GDS provides an overview of the implications of
8 recent changes to the federal tax code and GMP’s proposal to return a portion of its tax
9 savings as accredit during the upcoming rate year.

10
11 **Q11. Please provide some background on the regulatory landscape that is relevant**
12 **context for this case.**

13 A11. I will describe the regulatory landscape as it pertains to the capital spending, O&M, and
14 cost of capital portions of the rate case. In his testimony, Mr. McNamara provides a
15 summary of the regulatory landscape relevant to the power supply portion of the case.
16 GMP rates are set the way that most regulated utilities in the United States are, via a
17 proceeding to determine the appropriate cost-of-service, which in broad terms include
18 O&M expenses, purchased power costs, and return on rate base.

19
20 A substantial portion of GMP’s O&M revenue requirement has been pre-determined
21 under a formula outlined in a Memorandum of Understanding (“MOU”) adopted by June
22 15, 2012 Order from the Commission in 2012 in Docket 7770, which concerned the

1 merger of GMP and CVPS. The Docket 7770 ~~MOU~~Order defines this formula as “Base
2 O&M costs,” but it is generally referred to as the “O&M Platform.” The revenue
3 requirement for this portion of GMP’s rates will be determined under this ~~MOU~~Order
4 through 2022.

5
6 — Furthermore, GMP has been operating under a temporary alternative regulation plan
7 that took effect in January of 2018, which includes mechanisms for purchased power,
8 storms, and exogenous events cost recovery; allows GMP flexibility to pilot innovative
9 products and services; and is in effect for 2 years, through the end of 2019. Since a large
10 portion of Purchased Power costs are long-term contracts that have been reviewed several
11 times, and because O&M costs are largely pre-determined under the O&M Platform, the
12 Department’s review of the current case largely focuses on the impacts of capital
13 spending and investments in subsidiaries.

14
15 GMP filed a traditional rate case (Case 17-3112-INV) in 2017 for rates in effect in 2018.
16 During that case, the Department testified that the information available from the
17 Company was not sufficient to allow the Department to assess the reasonableness of the
18 proposed level of capital spending. In particular, the Department testified that the
19 Company was unable to produce complete financial analyses and other documentation
20 for approximately 69.7 percent of the capital projects reviewed by the Department.
21 Having such information available for review is essential for the Department to fulfill its
22 verification role in the rate case review process. As part of the Memorandum of

1 Understanding (“MOU”) that the Commission approved in that case, GMP agreed to
2 maintain contemporaneous documentation of its capital spending decisions and to a set of
3 standards describing the required analysis of capital projects. ~~The settlement also~~
4 ~~established a limit on the amount of capital allowed in rate base and provided GMP with~~
5 ~~5.37% increase in authorized revenues which resulted in a 5.02% rate increase.~~

6
7 In June, GMP filed a proposal for a multi-year alternative regulation plan (Docket 18-
8 1633-PET) that will operate through 2022, if approved by the Commission. The plan
9 would be bookended by this pending rate case and a traditional rate case to be filed for
10 the 2023 rate year. ~~At a high level, the plan consists of a capital spending cap, earnings~~
11 ~~sharing, the O&M platform, and a purchased power adjuster.~~ There are numerous issues
12 and details in the proposed plan that will be reviewed and potentially revised as that case
13 proceeds, and all components of the plan are ultimately subject to Commission approval.
14 However, some of the Department’s recommendations in this case are predicated on the
15 existence of a multi-year rate plan.

16
17 **Q12. Can you provide any perspective on the main cost drivers contributing to the need**
18 **for the rate increase proposed in this case?**

19 A12. During the July 13, 2018 workshop for this case, Commission staff requested that the
20 Department address the rate drivers underlying GMP’s rate request and attempt to tie any

1 recommended adjustments to those rate drivers, if possible.¹ First, I would like to provide
2 some perspective on complexities involved when trying to distill the primary reasons for
3 changes from a large list of numbers into a few key drivers. The summary cost-of-service
4 calculation is composed of over 25 cost items. Each of those items represents the
5 summation of a large subset of cost items and so on. When the overall percentage change
6 for a long list of numbers is relatively small, in a mathematical sense, there are numerous
7 ways to combine the numbers to a handful of primary drivers. The same list of numbers
8 is therefore subject to a wide range of interpretations of the primary drivers of the overall
9 change. That is true for the GMP numbers in this case.

10
11 The Department ~~has chosen to apply~~used the following logic when summarizing the
12 primary drivers. ~~We have~~The Department has categorized cost-of-service by function,
13 i.e. Power Costs, Transmission Costs, O&M, and made adjustments that account for the
14 regulatory mechanisms used to recover the costs. Breaking down the costs using this
15 logic results in these major categories.

16

¹ Tr. 7/13/18 at 87 (Poppiti).

Summary of GMP Adjustments to Cost of Service - As Filed
In \$1,000s

	<u>Test Period</u>	<u>Rate Period</u>	<u>Dollar Change</u>
Purchased Power and Production	\$217,808	\$239,191	\$21,384
Net Transmission	\$19,408	\$32,196	\$12,788
O&M Platform, Other O&M and Savings	\$66,517	\$79,066	\$12,550
Capital Related Costs	\$0	\$0	\$0
Depreciation & Amortization & Other	\$43,646	\$25,616	(\$18,029)
Taxes - Federal, State & Municipal	\$51,322	\$39,093	(\$12,229)
Return on Utility Rate Base	\$70,121	\$82,618	\$12,497
Less Affiliate & Other Operating Revenue	(\$37,640)	(\$16,201)	\$21,439
Gross Revenue & Fuel Gross Receipts Taxes	<u>\$4,565</u>	<u>\$4,588</u>	<u>\$23</u>
Cost to Ultimate Consumers	\$435,746	\$486,168	\$50,422

Most of the categories are ~~straight forward~~ straightforward and align well with the COS summary filed by GMP. Transmission O&M is shown net of the Equity in Earnings from Affiliates from VELCO to reflect the actual cost of transmission to the rate payer. I have provided a more detailed description of the ~~Cost-of-Service-service~~ line items included in each category in Exhibit DPS-BEW-3.

Q13. Does the analysis of the changes between the test period and proposed rate period reveal the main drivers of GMP rate increases?

A13. Not in this this case. The Department recommends that the Commission take a longer perspective when trying to determine the main drivers for the increase in GMP rates. In this case, both the test period and the rate period numbers represent only nine month periods and contain large one-time items that distort the overall trajectory of discrete

1 components of GMP's rates. For example, in the test period, the Affiliates & Other
2 Operating Revenue line contains a large one-time benefit of \$7.7 million related to a
3 Solar JV project. In the rate period, Depreciation & Amortization & Other line item there
4 are large one-time benefits associated with the Storage/Solar JV projects, totaling \$12
5 million, which reduce that line item significantly. The rate period also contains a one-
6 time benefit of approximately \$8.3 million from the VELCO sale of Utopus. Finally,
7 there is a significant difference in the federal tax rate for the test period and the rate
8 period. All these complications reduce the value of a straight test year to rate year
9 comparison. Nevertheless, my Exhibit PSD-BEW-3 attempts to provide the rate driver
10 analysis in the format requested by Commission staff during the workshop.
11

12 **Q14. What does the Department's analysis of the longer rate trends show are the main**
13 **drivers of GMP rate increases?**

14 A14. The Department performed an analysis of the rate trends for the period 2013 through
15 2018 grouping the costs in the same manner as used above. The results are presented in
16 the table below:
17

Comparison of Changes to GMP Cost of Service - 2013 Recorded to 2018 Settlement.

In \$1,000s

	<u>2013 Test Year Actual</u>	<u>2018 Settlement</u>	<u>Dollar Change</u>	<u>Percent Change*</u>
Purchased Power and Production	\$322,603	\$289,154	(\$33,449)	-10.37%
Net Transmission	\$31,676	\$28,878	(\$2,798)	-8.83%
O&M Platform, Other O&M and Savings	\$117,541	\$104,571	(\$12,970)	-11.03%
Capital Related Costs				
Depreciation & Amortization & Other	\$45,611	\$53,270	\$7,659	16.79%
Taxes - Federal, State & Municipal	\$46,809	\$67,487	\$20,678	44.18%
Return on Utility Rate Base	\$66,673	\$98,535	\$31,862	47.79%
Less Affiliate & Other Operating Revenue	(\$33,282)	(\$21,583)	\$11,699	-35.15%
Gross Revenue & Fuel Gross Receipts Taxes	<u>\$6,094</u>	<u>\$6,266</u>	<u>\$172</u>	<u>2.82%</u>
Cost to Ultimate Consumers	\$603,724	\$626,580	\$22,854	3.79%

Commented [BD1]: Brian, the word "Comparison" is misspelled in this graphic, but I cannot change the text. Can you revise the graphic and reinsert?

The results are clear and easy to interpret. Over the period, Purchased Power Costs, over which GMP has some limited control, have declined by \$33.4 million. GMP has made progress in reducing O&M costs which have declined by almost \$13 million. Net Transmission costs have remained relatively stable with a \$2.8 million decline. However, these cost reductions, which total \$49.2 million, have been more than offset by a \$60.2 million increase in capital and investment related costs, over which GMP has significant control. Were it not for that increase in capital spending, GMP rates may well have been over 9% lower by 2018. Given these trends, the Department believes its recent focus on the level of GMP capital spending is well-founded.

Proposed Capital Spending & Investments

Q15. Why is the level of capital spending and investments in subsidiaries so important in the GMP rate case?

1 A15. GMP has experienced significant growth in capital investment, especially during the
2 years following its merger with CVPS. Capital spending and, in GMP's case, investment
3 in subsidiaries are the primary components of rate base. GMP rate base grew by 22.7 %
4 from 2014 to 2017 and GMP projects that its rate base will grow from \$1.165 billion in
5 2014 to \$1.564 billion in 2019, which represents a 34.1% increase in less than 5 years.
6 The table below shows GMP's actual rate base from 2014 to 2017 and the projected rate
7 base for 2019.

GMP TOTAL RATEBASE INVESTMENT - 2014 to 2019 (\$1,000)

<u>2014</u> ¹	<u>2015</u> ²	<u>2016</u> ³	<u>2017</u> ⁴	<u>2019</u> ⁴
\$1,165,784	\$1,209,349	\$1,264,195	\$1,430,213	\$1,563,786

¹8389 2014.11.14 GMP ESAM Filing.pdf, pg 8, Green Mountain Power - 2014 Earnings Sharing Adjustor, filed with the PUC on November 14, 2014. 13 month average as of September 2014.

²GMP FY2015 ESAM.pdf, pg 4, Green Mountain Power - 2015 Earnings Sharing Adjustor, filed with the PUC on November 20, 2015. 13 month average as of September 2015.

³GMP FY 2016 ESAM Filing, pg 4, Green Mountain Power - 2016 Earnings Sharing Adjustor, filed with the PUC on November 29, 2016. 13 month average as of September 2016.

⁴Case No. 18-0974-TF Schedules 10 month average as of September.

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14

In the Company's most recent presentation to Standard & Poor's from November of 2017, which is attached as Exhibit PSD-BEW-2, the Company forecasted capital spending and investments in subsidiaries of \$534 million from 2018 through 2021. In that same presentation, GMP forecasted retail revenues to grow by 20.46% from 2017 to 2021. Finally, the GMP Long-Term Executive Compensation Plan (produced during

1 discovery as (Attachment GMP.DPS1.Q20.c) sets explicit targets for growth in
2 “Investments Driving Customer Value” defined in the plan documents as “total utility
3 plant, net” plus “investment in associated companies,” both of which are primary
4 components of rate base. The targets grow from \$1.73 billion for the period ending in
5 2017 to \$2.086 billion for the period ending in 2020. That amounts to 20.6% growth in
6 three years.

7
8 GMP is clearly planning to continue to significantly grow rate base. We know from the
9 analysis provided earlier in my testimony that growth in rate base is the single most
10 important driver of GMP rate increases. Therein lies the need for the Department and the
11 Commission to pay particular attention to the level of capital spending.

12
13 **Q16. How much capital spending and investment in subsidiaries has GMP proposed in**
14 **this case?**

15 A16. The Company has requested recovery for capital additions and investment in subsidiaries
16 of \$___ for 2018 and \$___ for 2019. The proposed capital spending and investments in
17 subsidiaries will increase the base rate revenue requirement (excluding the impact of the
18 lower tax rates and one-time credits) by approximately \$14 million from the test year
19 period.

20
21 **Q17. What is the Department’s assessment regarding the level of capital investment and**
22 **capital projects of the Company?**

1 A17. There does not seem to be a clear operational reason for the level of rate base growth
2 considering that customer growth is very low, load is stagnant, and sales are declining.
3 Testimony from our expert witnesses, discussed in detail later, confirms this position. In
4 fact, in this case, GMP has proposed some investments, such as the Storage/Solar JV
5 projects, that have no clearly established operational need. Instead the company has
6 sought to justify the expenditures on primarily economic grounds.
7

8 **Q18. Has the quality of GMP documentation and evaluation of capital spending in this**
9 **proceeding improved over what was provided in the last case?**

10 A18. In some area yes and in others no. GMP has adopted the agreed upon template for capital
11 projects and provided more detail on blanket projects over \$250,000. GMP has also
12 provided additional capital review process data in the templates, including the
13 management personal that approved projects and the dates that projects were approved.
14 This additional information in the templates is very helpful for the Department's review
15 of projects and demonstrates improvement in the project support documentation.
16

17 However, Kevin Mara of GDS Associates conducted a review of GMP's capital spending
18 proposals and identified the following weaknesses in the support documentation: cost
19 estimate errors; failure to use an industry standard method to value and prioritize
20 reliability projects; insufficient data to justify capital spending proposals; unnecessary
21 capital projects; and over use of blanket projects. Additionally, GMP did not evaluate, or
22 solicit requests for proposals for, viable alternatives to the Storage/Solar JV or Tesla

1 Powerwall projects. Mr. Mara discusses these issues in more detail in his testimony, but
2 the concerns he presents are consistent with issues that the Department has identified in
3 past cases.

4
5 **Q19. Do you support the proposed adjustment to Transmission, Distribution and General**
6 **Plant rate base discussed in the testimony of Kevin Mara of GDS Associates?**

7 A19. Yes. I am recommending that the Commission adopt the adjustments to T&D capital
8 spending included in the testimony of Kevin J. Mara, of GDS Associates Inc., which total
9 \$7.1 million. Mr. Mara's testimony includes a detailed by project discussion of the
10 rationale for excluding this amount.

11
12 **Q20. Please explain the Department's recommendation that \$25,712.16 million of blanket**
13 **projects be excluded from rate base.**

14 A20. In his testimony Mr. Mara testifies that he believes that \$42.5 million of the \$49.4 million
15 of proposed blanket capital projects could be excluded from rate base under the known
16 and measurable standard. Mr. Mara also found that including the blanket projects in rates
17 also eliminates the incentive for GMP to be efficient in design and construction. Mr.
18 Mara raised additional issues with the methods of estimating each of the different
19 categories of blanket projects.

20
21 The Department has raised concerns with GMP's use of blanket projects in prior cases
22 and is also concerned by the large increase in the use of blanket projects over the past few

1 years. However, the Department does not believe it would be appropriate to completely
2 remove the blanket projects in this case. First, the Commission has traditionally allowed
3 GMP to use blankets in traditional rate cases. Second, the Department is factoring in the
4 likelihood that this case may become the basis for a multi-year rate plan. In that event, it
5 would not be appropriate to defer recovery of costs contained within the blankets until the
6 next traditional rate case.

7
8 Given that the Department remains very concerned ~~that~~ about GMP's use of the blanket
9 capital project categories ~~are being overused, we, Mr. Mara was~~ asked Mr. Mara to
10 provide the Department with an analysis of the appropriate amount to include in rates for
11 each of the blanket project categories. The Department has reviewed his analysis and
12 recommends the Commission adopt the resulting adjustments totaling \$25,712.16
13 million.

14
15 **Q21. Please summarize the rationale for excluding Renewable Energy Credits from rate**
16 **base.**

17 A21. Certain renewable energy credits are created, with some regulatory lag, simply from the
18 operation of GMP generation assets or through purchased power contracts. Mr.
19 McNamara discusses the timing and procurement issues that lead to GMP carrying RECs
20 in rate base, and Mr. Myers raises an accounting concern with GMP's practice of holding
21 RECs in rate base. Based on their respective testimonies, the Department recommends
22 that \$4.08 of these credits be removed from rate base.

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Q22. Please explain the Department's recommendation that the Heat-Pump Water Heater products be excluded from rate base.

A22. First it is useful to provide some background. The Department supports the Company's efforts to find innovative solutions to serve its customers' needs, and promote state energy policy. However ~~anytime, when~~ a monopoly public utility offers commercially available competitive products and services, an issue arises about the utility's impact on the competitive market. For instance, in this case, GMP has included the costs associated with the heat-pump water ~~heater~~heaters in rate base.

As noted in prior cases, instead of requiring GMP to conduct this type of business in an unregulated subsidiary, as in commonplace across the nation, the Department has developed a list of conditions that should be met ~~before the Department will support including~~ if generally available consumer products are to be included in rate base. These requirements are: that the Company must have the ability to control the usage of those products for the benefit of all ratepayers; benefits of the program must exceed the costs to non-participating ratepayers; any bad debt expense should be borne by the program or shareholders; and that GMP must open its billing system to companies offering similar competing products. The Department and GMP have discussed these conditions throughout the pilot review process, and ~~it was addressed in the~~ ultimately these discussion led to resolution of ~~if~~ Docket 8794, in which GMP sought to tariff its heat pump and heat pump water heater pilots.

1
2 The ability for GMP to exercise control of these products for the benefit of all ratepayers
3 was generally not implemented for ~~Heat Pump Water~~ heat-pump water heater products
4 offered in 2016 and part of 2017. The Company has stated that beginning in 2018, such
5 control will be a standard component of innovative products and services included in rate
6 base. It has become apparent since then that controls for these products are not generally
7 available. Additionally, it is not clear that the ~~heat-pump~~ water heaters' operating
8 characteristics will allow them to be efficiently controlled to create benefits for non-
9 participating customers. Until GMP has implemented the ability to control these devices
10 for the benefit of all ratepayers, the Department recommends excluding them from rate
11 base to remedy the competitive advantage created by the regulated rate of return on the
12 investment. The Department has recommended that the revenues and costs associated
13 with these devices, including depreciation, flow through other operating revenue.
14

15 **Q23. Please explain the Department's recommendation that the Tesla Powerwall products**
16 **be excluded from rate base.**

17 A23. There are several significant concerns with this pilot program. The first is that the overall
18 size of the program is \$15 million. This is a significant portion of GMP's proposed 2019
19 capital budget of ~~\$85 million~~. While there is no dollar limit on the size of pilot programs
20 allowed under GMP's current alternative regulation plan, a \$15 million investment in a
21 project with speculative and unknown benefits is ~~is~~ would appear excessive.
22

1 More importantly, the documentation that GMP provided in support of the Powerwall
2 project raises concerns as to whether the project will actually yield ratepayer benefit.
3 Christopher Dawson of GDS Associates reviewed the avoided cost models used by GMP
4 to justify both the Tesla Powerwall program and the Storage/Solar JV projects and has
5 concluded that: the resulting energy prices are optimistic beyond five years; the capacity
6 prices increases included in the model lack adequate foundation; REC price assumptions
7 are unproven and unrealistic on a long-term basis; and the assumed Transmission price
8 increases appear to be unsustainable. Mr. Dawson also concluded that GMP ~~failed to~~did
9 not perform any sensitivity analysis around the market price projections. His conclusions
10 raise ~~doubts~~concerns about the underlying analysis conducted by GMP to show that the
11 program will provide economic benefits. Furthermore, GMP did not adequately explore
12 alternatives to storage, such as demand response. Finally, GMP did not provide any
13 support indicating that it explored alternative vendors and did not solicit RFPs for this
14 program.

15
16 The significant cost of the Powerwall project coupled with the uncertainties of its
17 potential ratepayer benefits warrant ~~a removal of~~removing this project from rate base in
18 this case. The ~~Department does not believe that the~~ Powerwall project should not be
19 permanently disallowed; rather the ~~Department believes that~~ it would be appropriate to
20 allow for GMP to continue the project as a pilot and include its costs in rate base only if
21 GMP can demonstrate that the project actually achieves its intended benefits and is
22 ultimately approved by the Commission as a tariffed service. Mr. McNamara also

1 discusses the Powerwall pilot program in his testimony, and provides additional support
2 for the Department's position that the Powerwall pilot program should be removed from
3 rate base in this case.
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6 **Power Supply**

7 **Q24. Please summarize the Department's testimony regarding GMP's Power Supply**
8 **expenses.**

9 A24. Mr. McNamara and Mr. Christopher Dawson of GDS Associates addresses power supply
10 costs on behalf of the Department in their respective testimonies. Mr. McNamara
11 recommends that the Commission reduce GMP's power supply costs by \$397,682 to
12 account for a recalculation of GMP's Regional Network Service ("RNS") rate and GMP's
13 rate base by \$4.08 million to remove a portion of GMP's RECs from rate base.
14

15 Christopher C. Dawson of GDS Associates Inc. conducted a review GMP's power supply
16 costs and the markets forecasts used in the economic analysis of the Storage/Solar JV
17 projects and Tesla Power program. He concluded: GMP's hedging program is
18 insufficiently documented and structured; the market price analysis used in Storage/Solar
19 JV projects and Tesla Powerwall may not justify their investments; and that GMP has not
20 sufficiently evaluated Demand Response as a resource.
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Capital Structure and Cost of Capital

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Q25. Please summarize the Company's requested cost of capital and capital structure.

A. ~~3025~~GMP requests an authorized return on equity of 9.3 percent and a capital structure consisting of 49.85 percent equity and 50.15 percent debt. The weighted average cost of capital ("WACC") was estimated at 5.28 percent when factored for the nine month rate period. The Department's retained cost of capital witness, Rick Baudino of J. Kennedy Associates, found that GMP's proposed ROE of 9.3% falls within his range of reasonable returns. Accordingly, the Department ~~is~~does not recommended an adjustment to GMP's proposed ROE. However, Mr. Baudino does recommend a slight reduction of GMP's cost of debt from 5.07 to 5.03 percent.

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Q26. What does the Department recommend for GMP's cost of capital?

A. ~~25.~~In his testimony, Richard A. Baudino of J. Kennedy and Associates, recommends a return on equity of 9.1% based on analysis that shows reasonable range for the ROE of 8.7% to 9.35%. This recommendation is consistent with the 9.3% cost of equity that Department agreed to in the settlement with GMP in the last rate case. Accordingly, the Department is not recommended an adjustment to GMP's proposed ROE. Mr. Baudino agrees with GMP's requested capital structure and cost of short term debt. However, Mr. Baudino recommends a slight reduction of GMP's cost of debt from 5.07 to 5.03 percent, resulting in an overall recommended cost of capital for GMP of 6.97%. It is important to note that Mr. Baudino's analysis was based on GMP's nine month rate year.

1 **The Department's Revised Cost-of-Service-service**

2 **Q27-Q26.** Please summarize the Testimony of Jacob Thomas.

3 ~~A32-A26.~~ Mr. Jacob Thomas of GDS Associates has prepared a COS model to summarize
4 the final rate impact of the Department's recommendations. Mr. Thomas's COS model
5 incorporates adjustments to cost of capital, capital spending and power supply based on
6 information included in GMP's filing materials and discovery responses. Mr. Thomas's
7 model was also based off of GMP's own COS modeling, but the Department recognizes
8 that there may be minor inconsistencies in data from flow-through adjustments based on
9 the Department's recommendations. If necessary, the Department will updated and
10 resubmit its COS model if any additional flow through adjustments need to be revised.

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12 **Return of Accumulated Deferred Income Taxes Through a Bill Credit**

13 **Q28-Q27.** What does this issue pertain to?

14 ~~A33-A27.~~ The Tax reform that went into effect on January 1, 2018 lowered the
15 corporate federal income tax rate from 35% to 21%. This has resulted in two major
16 impacts to GMP's cost-of-service. The first is, on a going forward basis, GMP will need
17 to collect less Federal Income Tax from ratepayers. The second relates Accumulated
18 Deferred Income Taxes (ADIT) that were collected from rate-payers based on the old tax
19 rate. The amount of ADIT in excess of the new rate will be returned to ratepayers in two
20 ways. Some portion will be returned over multiples years based on the remaining life of
21 certain assets. GMP is also proposing that other portion, \$27.4 million, be returned to rate
22 payers as a bill credit to be paid over the rate year.

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~~Q29, Q28.~~ **Does the Department Support GMP's proposed treatment of the excess Accumulated Deferred Income Taxes?**

~~A34, A28.~~ Yes. Terry Myers of GDS Associates, Inc. performed an extensive review of the analysis GMP performed in this area and found no issues. In fact, he indicated that the GMP analysis was one of the most well prepared that he had seen. The Department supports the proposal and appreciates GMP's proactive efforts to return the excess accumulated deferred income taxes to ratepayers in a timely manner through one-time bill credits in the current and proposed rate periods.

Storage/Solar JV Projects

~~Q30, Q29.~~ **Is Does the Department comfortable with have concern about the process GMP used to evaluate the need for the Storage/Solar projects?**

~~A35, A29.~~ No. Yes. GMP has not ~~asserted~~ demonstrated that there is a physical system need (safety, reliability, replace aging or damaged equipment, etc.) ~~or regulatory policy requirement~~ for this type of equipment. Although originally proposed as microgrids, GMP did not propose installing the equipment needed to isolate the circuits. ~~In fact, in~~ response to a discovery request in the Milton Microgrid proceeding, Case No. 17-5003-PET, the company stated that:

GMP does intend to implement islanding capabilities with the Project, recognizing that the costs and benefits of those activities are separate from the base use cases (primarily peak load reductions and Frequency Regulation) presented in the CPG application. *GMP wishes to emphasize that the business case for the Project is based on the positive economics*

1 *described by the cost benefits analysis. At the time that the scope of*
2 *providing islanding services have been fully analyzed, the costs and*
3 *benefits of providing those services to customers will be separately*
4 *identified and evaluated before proceeding. (Emphasis added)*

5 Furthermore, GMP did not provide any support indicating that other alternatives to
6 battery storage were adequately considered and GMP did not solicit RFPs from
7 competing suppliers. Therefore, from the documentation provided in support of the
8 projects, it appears least-cost alternatives were not adequately explored, and the location
9 of these projects is not relevant in terms of engineering necessity or benefit.

10
11 **Q31-Q30. Does the Department believe that these projects will provide the**
12 **asserted projected economic benefit to ratepayers?**

13 **A36-A30.** The primary justification offered by GMP for these projects is the
14 economic benefit to rate payers; however that benefit is subject to execution and market
15 price risk. As indicated earlier in my testimony, Mr. Dawson of GDS Associates has
16 raised ~~doubts~~concerns about the analysis showing that the project will provide economic
17 benefits since the market price forecasts were generally optimistic. The value of the
18 projects is highly dependent on factors such as market price, the success in timing of
19 peaks and other assumptions. The net present value ("NPV") is also impacted by the
20 proposed non-traditional-upfront ratemaking treatment of the developer fee and
21 hypothetical book value at liquidation ("HLBV"). In short, there is a significant risk that
22 ratepayers will not receive the ~~asserted economic benefits.~~ The degree of uncertainty

1 around the economic benefits is of concern since the only purpose of the project is to
2 provide those benefits. projected economic benefits.

3
4 **Q32-Q31.** Does the Department have ~~concerns with~~ reservations about the way GMP is
5 accounting for the year-one HLBV and developer fee?

6 ~~A37-A31.~~ Yes. Terry Myers of GDS Associates, Inc. raises a concern regarding how GMP is
7 treating the HLBV and the up-front developer fee when its Storage/Solar Joint-Venture
8 (“JV”) projects are put in service. GMP currently uses this fee to reduce amortization,
9 which benefits ratepayers in the first year but results in higher costs in subsequent years,
10 resulting in an intergenerational inequity. The ~~normal~~ traditional ratemaking approach is
11 for these benefits would be to amortize/amortize them over the life the projects. Mr.
12 Myers also indicates that the IRS may determine that this upfront treatment violates its
13 normalization rules. If that is the case, GMP could lose its ability to use accelerated
14 depreciation. The Department’s position is that this departure from the normal treatment
15 requires specific approval from the Commission. However, as discussed by Mr.
16 McNamara in his testimony, there are policy considerations that justify GMP’s non-
17 traditional accounting approach for these projects in this case.

18
19 **Q33-Q32.** What risks do the tax equity investors face?

20 ~~A38-A32.~~ Very little. The tax equity partner contributes cash to the Project upfront and in
21 return, receives most of the tax depreciation, ITC benefits, and rights to a small amount
22 of the cash flow from the Project for the first five years.

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Q34:Q33. Do GMP investors face any risk that they will not earn their authorized return?

~~A39:A33.~~ Once the project is added to rate base, GMP will earn its authorized rate of return over the life of the project. Except for variations due to changes in GMP's authorized return on equity, or other highly unlikely exogenous events, there is almost no risk associated with those earnings. However, ratepayers bear a risk associated with the NPV due to the length of the payback time and the volatility associated with the market price risk.

Q34. ~~Why does~~ Does the Department recommend that GMP be required to provide financial assurance that the JV projects be included in rate payers will receive base, and if so, is that recommendation subject to any conditions?

Q35. ~~Yes,~~ the asserted benefits?

~~A40:A34.~~ In short, it is about Department supports inclusion of the JV projects in rate base, but that support is contingent on the Commission ensuring an appropriate balance of equities. The between GMP and its ratepayers. As Mr. McNamara discusses in his testimony, policy considerations justify a departure from traditional ratemaking and accounting principles for these projects. Developing these projects will provide GMP with valuable experience with designing and implementing modern renewable energy and storage projects. Allowing these projects will also provide regulators with meaningful data on the actual benefits of the new technologies that GMP is implementing with these

1 projects. Accordingly, the Department recommends that the JV microgrid projects be
2 included in rate base. However, the primary benefit for ratepayers being supported by
3 GMP is economic. -GMP and the project investors will earn substantial returns with
4 minimal risk.- These returns are backstopped by rate payer money and the rate payers are
5 being asked to bear a disproportionate amount of risk as compared to GMP and project
6 investors. -Again, this is not like investing in a substation, transformers or poles, where
7 ratepayers will clearly receive operational benefits from the assets. -This is a speculative
8 investment where the benefits are risky and purely economic. TheTherefore, consistent
9 with its recommendations from Case 17-5003-PET (the Milton microgrid § 248 case), the
10 Department recommends that the PUC require GMP to provide ratepayers financial
11 assurance for the asserted economic benefit to ratepayers of these projects and, that, GMP
12 investorsshould also be required to indemnify ratepayers from any financial
13 consequences that could result from adverse IRS rulings relating to GMP's approach to
14 the HLBV and developer fees.

15
16 ~~Q36. Does the Department recommend that these projects be removed from rate base?~~

17 No. It is the Department's policy to encourage storage as a means of supporting wider
18 implementation of renewable resources and the more distributed nature of energy production
19 in general. The Department feels that the recommendation that GMP provide assurance
20 strikes the right balance between GMP's need to get experience with innovative solutions and
21 protecting ratepayers for assuming too much risk.
22

Forecasted Sales and Customer Growth Costs

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2 **Q37-Q35. Does the Department have an issue with GMP using forecasted sales for the**
3 **2019 rate period?**

4 ~~A41-A35.~~ Not in this case, especially if the Commission approves a multi-year rate plan for
5 GMP. Although Commission precedent is clear for traditional ratemaking, the regulatory
6 mechanics of operating under a multiyear rate plan make that precedent impractical for
7 several reasons. First, depending on the design of the multi-year plan, there will be a
8 need to create an annual sales forecast to flow through rate adjustments related to
9 purchased power estimates. To avoid unnecessary volatility, prior period actual sales will
10 need to be adjusted for known and measurable changes, such as significant known
11 changes in loads, and will need to be weather normalized. Secondly, Mr. McNamara has
12 done an extensive review of the forecasting methodology employed by GMP and has
13 determined that it is an acceptable approach in this circumstance in light of current
14 market conditions and GMP's sales trends.

15
16 **Q38-Q36. Does the Department support the inclusion of costs related to customer**
17 **growth for the 2019 rate period?**

18 ~~A42-A36.~~ In this circumstance yes. Again, if a multi-year rate plan is approved, it would be
19 impractical to apply the traditional rate making approach of excluding customer growth
20 related costs. It would require that GMP to incur multiple years of regulatory lag related
21 to the recovery of the growth related costs; or require an annual adjustment mechanism to
22 true-up to the actual growth related costs incurred.

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~~Q39:Q37.~~ **Please describe the appropriate ratemaking treatment for growth-related plant in Vermont.**

~~A43:A37.~~ My understanding of the appropriate ratemaking treatment for growth-related plant comes from *Tariff filing of Green Mountain Power Corporation*, Docket No. 5428, Order of 1/4/91. In that case, GMP sought to include a number of capital additions in its rate base that the Department argued were being put into service to serve new customers, either in whole or in part. The Board set forth its rule of decision as follows:

The Board has previously held that since revenues from new customers are not included in rate year income, expenses associated with serving those customers should also be excluded. We apply that principle in this case, but we do not extend it to exclude investments that are made to maintain adequate and efficient service for test year customers and are only incidentally available to serve new customers as well. We have allowed inclusion of certain improvements which will be able to accommodate some growth-related sales, where the record demonstrates that the improvements were not undertaken in order to accommodate growth, but were or are needed to maintain adequate and efficient service for test year customers, absent any load growth.

Id. at 21.

~~Q40:Q38.~~ **Is there any other circumstance where it is appropriate to consider growth-related plant in establishing utility rates?**

~~A44:A38.~~ Yes. The rule is based on the need to match revenues and costs when setting rates, so that the numerator (costs) is spread fairly across the appropriate denominator (sales). In the case cited above, the Board achieved this by using test year sales and

1 excluding growth-related plant. Theoretically, you can achieve a similar matching using
2 rate year (projected) sales and including growth-related plant. This too, should achieve a
3 matching between revenues and sales. Because using projected figures has, in the past,
4 been considered less reliable than using known test-year figures, it makes sense as a
5 general matter to use the known test-year figures and exclude growth-related plant. In
6 this case the Department is satisfied that the method for forecasting sales is acceptable.

7
8 **Customer Service**

9 **Q41-Q39. Please summarize the Department's testimony regarding GMP's Customer**
10 **Service?**

11 **A45-A39.** Ms. Flint, the Department's CAPI Director, presents an overview of GMP's recent
12 customer service history including service reliability as well as an opinion of the
13 Company's provision of certain un-tariffed products and services. Ms. Flint does not
14 recommend any adjustments to GMP's cost-of-service.

15
16 **Q42-Q40. Does this conclude your testimony?**

17 **A46-A40.** Yes.